IN THE CLAIMS

Please amend claims 1, 12, and 22-23 and cancel claim 11 as indicated in the complete listing of all claims in the application set forth below.

1. (Currently Amended) A process for preparing carbohydrate fatty-acid esters comprising the steps of:

(a) reacting, by solvent free trans-acidolysis, acylated carbohydrate with free fatty acid in the presence of an acid catalyst, under reduced pressure in the range of about 4 - 20 Torr;

(b) decolorizing and separating out the unreacted fatty acid, from the reaction mixture obtained in step (a);

(c) precipitating out the unreacted acylated carbohydrate from the reaction mixture obtained in step (b); ~~and~~

(d) recovering carbohydrate fatty ester from the reaction mixture obtained in step (C); and

(e) librating free hydroxyl groups by partial hydrolysis of the C2- or C3-acylated carbohydrate fatty acid ester in the presence of an acid catalyst for a predetermined period of time to obtain carbohydrate fatty acid ester having free hydroxyl groups of predetermined Hydrophile-Lipophile-Balance (HLB) values.

2. (Original) The process of preparing carbohydrate fatty-acid esters of Claim 1, wherein in step (a), no solvent is added thereto.

3. (Original) The process of preparing carbohydrate fatty-acid esters of claim 1, wherein in the unreacted fatty-acid in the reaction mixture in step (b) is removed by precipitation from a solvent mixture at controlled temperature.

4. (Original) The process of preparing carbohydrate fatty-acid esters of claim 1, wherein the unreacted fatty-acid in the reaction mixture in step (b) is removed from the reaction mixture by solvent extraction.

5. (Previously Presented) The process of preparing carbohydrate fatty acid ester of claim 1 wherein the unreacted acylated carbohydrate is precipitated out in step (c) by cooling the reaction mixture in step (b) to a temperature in the range of about -4 to about 10 degree C.

6. (Original) The process of preparing carbohydrate fatty acid esters of claim 1, wherein the unreacted free fatty acids and the unreacted C2 or C3-acylated carbohydrate esters which are removed

during purification steps (b) and (c) are recycled to the reactant mixture.

7. (Canceled)

8. (Previously Presented) The process of preparing carbohydrate fatty-acid ester of claim 1 wherein step (a) is carried out at a pressure in the range of about 5-10 Torr.

9. (Previously Presented) The process of preparing carbohydrate fatty-acid esters of Claim 1, wherein mono-, di- and poly-fatty acid esters of C2- or C3-acylated carbohydrates of various Hydrophile-Lipophile-Balance (HLB) values are obtained.

10. (Previously Presented) The process of preparing carbohydrate fatty-acid esters of Claim 1, wherein the Hydrophile-Lipophile-Balance (HLB) values of the product carbohydrate fatty-acid esters are in the range of about 1 to about 10.

11. (Canceled)

12. (Currently Amended) The process of preparing carbohydrate fatty acid esters of claim ~~11~~ 1, wherein the HLB values of the

product carbohydrate fatty-acid esters are in the range of about 8 to about 16.

13. (Previously Presented) The process of preparing carbohydrate fatty-acid esters of Claim 1, wherein step (a) is processed at a temperature ranging from about 60 to about 95 degree C.

14. (Previously Presented) A process of preparing carbohydrate fatty acid esters comprising the steps of:

(a) reacting, by solvent-free trans-acidolysis, acylated carbohydrate with free fatty acid in the presence of an acid catalyst, under reduced pressure in the range of about 4 - 20 Torr;

(b) decolorizing and separating out the unreacted fatty acid, from the reaction mixture obtained in step (a);

(c) precipitating out the unreacted acylated carbohydrate from the reaction mixture obtained in step (b);

(d) removing the unreacted free fatty acids and carbohydrate esters of low molecular-weight carboxylic acids during purification, and recycling the removed unreacted free fatty acids and carbohydrate esters to the starting reactant mixture; and

(e) librating free hydroxyl groups by partial hydrolysis of the acylated carbohydrate fatty acid ester in the presence of an acid catalyst for a predetermined period of time to obtain

carbohydrate fatty acid ester having free hydroxyl groups of predetermined Hydrophile-Lipophile-Balance (HLB) values.

15. (Original) Carbohydrate fatty-acid esters produced in accordance with the process of claim 1 or 14.

16. (Previously Presented) The process according to claims 1 or 14 wherein the reactant carbohydrates include the group consisting of partially or peracylated mono-, di- and tri-saccharides in which the monosaccharide unit(s) is selected from the group consisting of furanosyl, pyranosyl or a C2-C6 open-chain structure.

17. (Previously Presented) The process according to claims 1 or 14 wherein the acyl group in the reactant acylated carbohydrates is acetic or propanoic acyl group.

18. (Previously Presented) The process according to claims 1 or 14 wherein, the acid catalysts includes sulphuric or camphorsulfonic acid, in the case of the monosaccharides; or boron trifluoride diethyl etherate, alkyl sulphonic acid polysiloxanes or tosylic acid, in the case of the di- and tri-saccharides.

19. (Previously Presented) The process according to claims 1 or 14 wherein in step (b) solvents are used to remove the unreacted fatty acid from the reaction mixture, said solvents selected from the group consisting of water, ethanol, iso-propanol, n-propanol, ethyl acetate, and mixtures thereof.

20. (Original) The process according to claims 4 wherein the extraction solvent is hexane.

21. (Previously Presented) The process according to claims 1 or 14 wherein the free fatty acids have C6-C22 chain-length, with zero, mono or di-unsaturations.

22. (Currently Amended) The process according to claims ~~11~~ 1 or 14 wherein the hydrolysis acid catalyst is trifluoroacetic acid.

23. (Currently Amended) The process according to claims ~~11~~ 1 or 14 wherein the partially hydrolysed carbohydrate fatty acid esters are further separated by stage cooling, at controlled temperature ranging from about -15 to about 10 degree C, according to their degree of acylation.